

PP23697.001; 20366-005001
SERIAL NO.: 10/085,117

PATENT
FILED: February 27, 2002

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1-19 without prejudice.

Please add new claims 20-31.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-19 (Cancelled)

20. (New) A method of diagnosing cancer in a patient comprising detecting the presence of differential expression of a cancer associated (CA) gene in a patient sample, wherein the presence of differential expression of the CA gene in said sample is indicative of a patient who has cancer.

21. (New) The method of claim 20 wherein the cancer is breast, colon or prostate cancer.

22. (New) The method of claim 20 wherein the CA gene has a nucleotide sequence selected from the group consisting of SEQ ID NOS: 4, 10, 16, 22, 28, 34, 40, 46, 52, 58, 64, 70, 76, 82, 88, 94, 100, 106, 112, 118, 124, 130, 136, 142, 148, 154, 160, 166, 172, 178, 184, 190, 196, 202, 208, 214, 220, 226, 232, 238, 244, 250, 256, 262, 268, 274, 280, 286, 292, 298, 304, 310, 316, 322, 328, 334, 340, 346, 352, and 358.

23. (New) The method of claim 20 wherein the differential expression is down-regulation of CA gene expression as compared to a control.

24. (New) A method of diagnosing cancer comprising:

(a) measuring a level of mRNA of a cancer associated (CA) gene in a first sample, said first sample comprising a first tissue type of a first individual; and

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(b) comparing the level of mRNA in (a) to:

- (1) a level of the mRNA in a second sample, said second sample comprising a normal tissue type of said first individual, or
- (2) a level of the mRNA in a third sample, said third sample comprising a normal tissue type from an unaffected individual;

wherein a decrease of at least 50% between the level of mRNA in (a) and the level of the mRNA in the second sample or the third sample indicates that the first individual has or is predisposed to cancer.

25. (New) The method of claim 24 wherein the mRNA has a nucleotide sequence selected from the group consisting of SEQ ID NOS: 5, 11, 17, 23, 29, 35, 41, 47, 53, 59, 65, 71, 77, 83, 89, 95, 101, 107, 113, 119, 125, 131, 137, 143, 149, 155, 161, 167, 173, 179, 185, 191, 197, 203, 209, 215, 221, 227, 233, 239, 245, 251, 257, 263, 269, 275, 281, 287, 293, 299, 305, 311, 317, 323, 329, 335, 341, 347, 353, and 359.

26. (New) The method of claim 24 wherein the cancer is breast, colon or prostate cancer.

27. (New) A method of diagnosing cancer comprising:

- (a) measuring a level of cancer associated (CA) gene expression in a first sample, said first sample comprising a first tissue type of a first individual; and
- (b) comparing the level of CA gene expression in (a) to:
 - (1) a level of CA gene expression in a second sample, said second sample comprising a normal tissue type of said first individual, or
 - (2) a level of CA gene expression in a third sample, said third sample comprising a normal tissue type from an unaffected individual;

wherein a decrease of at least about 50% between the level of CA gene expression in (a) and the level of CA gene expression in the second sample or the third sample indicates that the first individual has or is predisposed to cancer.

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28. (New) The method of claim 27 wherein the cancer is breast, colon or prostate cancer.

29. (New) The method of claim 24 or claim 27 wherein the decrease between the level of CA gene expression in (a) and the level of the CA gene expression in the second sample or the third sample is at least 100%.

30. (New) The method of claim 27 wherein the level of CA gene expression is determined by measuring mRNA levels.

31. (New) The method of claim 30 wherein the mRNA has a sequence selected from the group consisting of SEQ ID NOS: 5, 11, 17, 23, 29, 35, 41, 47, 53, 59, 65, 71, 77, 83, 89, 95, 101, 107, 113, 119, 125, 131, 137, 143, 149, 155, 161, 167, 173, 179, 185, 191, 197, 203, 209, 215, 221, 227, 233, 239, 245, 251, 257, 263, 269, 275, 281, 287, 293, 299, 305, 311, 317, 323, 329, 335, 341, 347, and 353, and 359.